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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,330	01/22/2004	Tsuyoshi Nakamura	Q79512	2694

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EXAMINER

GUADALUPE, YARITZA

ART UNIT PAPER NUMBER

2859

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/761,330

Applicant(s)

NAKAMURA ET AL.

Examiner

Yaritza Guadalupe McCall

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

In response to Amendment filed May 24, 2005

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 11 are finally rejected under 35 U.S.C. 102 (b) as being anticipated by Yanagisawa (US 6,327,929).

With respect to claim 1, Yanagisawa discloses a two dimensional drive system and apparatus comprising a base (support base 42, X-axis base 16, Y-axis base 18, and base 10); guide elements (12, 14, 17, 19) provided on non-adjacent ends of each base (when moved to be aligned on non-adjacent ends of the base); a drive element (22, 24) provided on the X and Y axes bases (16, 18) and capable of being provided at non-adjacent ends of the base when each of the X and Y bases are moved to ends of base (10), wherein the drive element moves the slider along the guide elements. Yanagisawa discloses an apparatus having drive elements (22,

24) provided with a support structure where a set of two guide elements (17, 19) are disposed on opposite sides of each drive element (See Figure 1).

In regards to the stiffness limitation in claim 1, Yanagisawa discloses an apparatus wherein the X-axis stage (16) could be positioned at one end of the base stage (42) and wherein the Y-axis stage (18) could also be positioned at one end of the base stage (42) by actuation of motors (26, 28), therefore, the stiffness of the guide elements (17, 19), in a yawing direction of the stage, provided in the area where the drive elements (22, 24) are provided, is made higher than that of the guide elements (12, 14) provided in an area opposite the area where the drive elements (22, 24) are provided.

In regards to claim 2, Yanagisawa also discloses a device having two guide elements (12, 14, 30, 31) provided on the base in the area where the drive element is provided (on each side of drive element).

Regarding claim 3, Yanagisawa teaches a plurality of guide elements (12, 14, 30, 31) provided in the area of the base where the drive element (22, 24) is provided and arranged substantially symmetrically with respect to the drive elements and mutually proximate to each other.

With regards to claim 4, Yanagisawa further discloses an apparatus wherein the drive elements (22, 24) are formed from a ball screw (See Column 7, lines 16 – 23), and the guide elements are formed from a linear guide (See Figure 1 and column 6, line 42).

In regards to claim 5, Yanagisawa teaches the stage having an opening section (11).

Regarding claim 6, Yanagisawa discloses an X - Y axis stage system comprising a stage (42); guide elements (12, 14) provided on both ends of the stage; drive elements (22, 24) which are provided at one of both ends of the stage and move the stage along the guide elements in an X – axis and a Y-axis, and wherein stiffness, in a yawing direction of the stage, of the guide elements (12, 14) provided in the area where the drive elements (22, 24) are provided is made higher than that of the guide elements provided in an area opposite the area where the drive element is provided.

With regards to claim 7, Yanagisawa also teaches an X – Y axis stage comprising second guide elements provided on second non-adjacent ends of the base (See Figure 1), a second slider (16, 18) which is guided by the second guide elements; and a second drive element (22, 24) provided at one of the second non-adjacent ends of the base and which moves the second slider along the second guide elements. In regards to the stiffness limitation in claim 7, Yanagisawa discloses an apparatus wherein the X-axis stage (16) could be positioned at one end of the base stage (42) and wherein the Y-axis stage (18) could also be positioned at one end of the base stage (42) by actuation of motors (26, 28), therefore, the stiffness of the guide

elements (17, 19), in a yawing direction of the stage, provided in the area where the drive elements (22, 24) are provided, is made higher than that of the guide elements (12, 14) provided in an area opposite the area where the drive elements (22, 24) are provided.

In regards to claim 8, Yanagisawa teaches an X - Y stage wherein said second slider is arranged so as to move in a direction perpendicular to that in which said first slider is arranged to move (See Figure 1).

Regarding claim 9, Yanagisawa also teaches positioning apparatus wherein the guide elements are disposed in parallel to the ends of the base on which they are provided.

In regards to claim 10, Yanagisawa discloses a positioning apparatus wherein the drive element is not provided at the other one of the non-adjacent ends of the base, when the X base and the Y base are positioned on ends of the base (10).

With respect to claim 11, Yanagisawa shows a positioning apparatus wherein the drive element and the guide elements are parallel to one another.

Response to Arguments

3. Applicant's arguments filed May 24, 2005 have been fully considered but they are not persuasive.

Applicant's argues that Yanagisawa discloses an arrangement wherein the drive element is provided in the middle of the base and the stiffness of the slider is the same on each of two non-adjacent ends wherein the guide elements are provided. This argument is not persuasive, since it has been indicated, that the X and Y sliders shown by Yanagisawa could be positioned on each end of the base (10), i.e., the X slider is moved all the way to the left and the Y slider is moved all the way down, therefore, resulting in an arrangement wherein the guide elements are provided on non-adjacent ends of the base and a drive element positioned at one of the non-adjacent ends, thus fulfilling and anticipating the requirements of the claims.

Applicant contends that the arrangement given above, fails to maintain a stiffness of a guide element at a side on which a drive element is provided. However, it is noted, that this condition is only met when the drive element is fixed on the base, and this feature is not present in the claimed invention.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

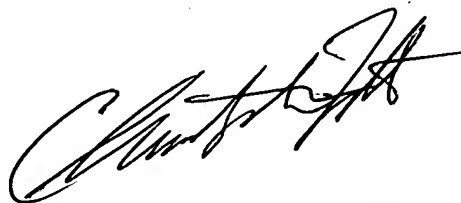
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaritza Guadalupe-McCall whose telephone number is (571)272-2244. The examiner can normally be reached on 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Yaritza Guadalupe-McCall
Patent Examiner
Art Unit 2859
June 7, 2005



CHRISTOPHER W. FULTON
PRIMARY EXAMINER